

Event Overview

- March 11, 2011
- 9.0 magnitude earthquake
- Tsunami: 130 ft. maximum wave height
- 217 square miles inundation
- Nearly 20,000 people dead
- Massive damage and debris:
 - 25M tons total debris, 5M washed out to sea, 1.5M tons remained afloat*



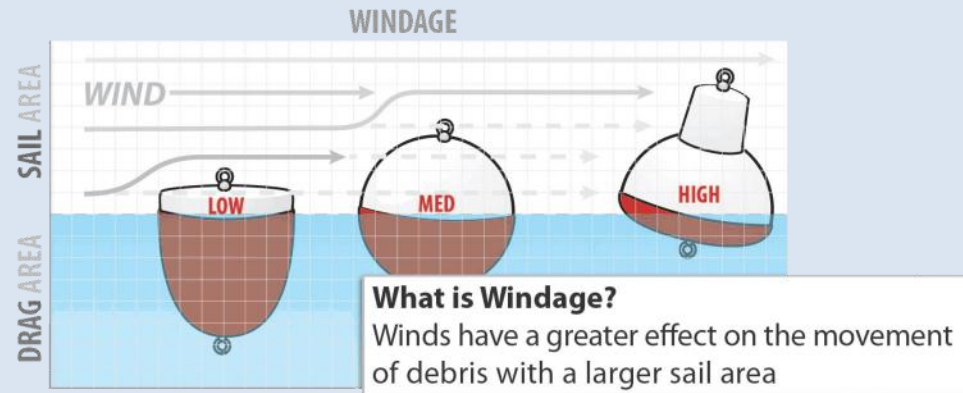
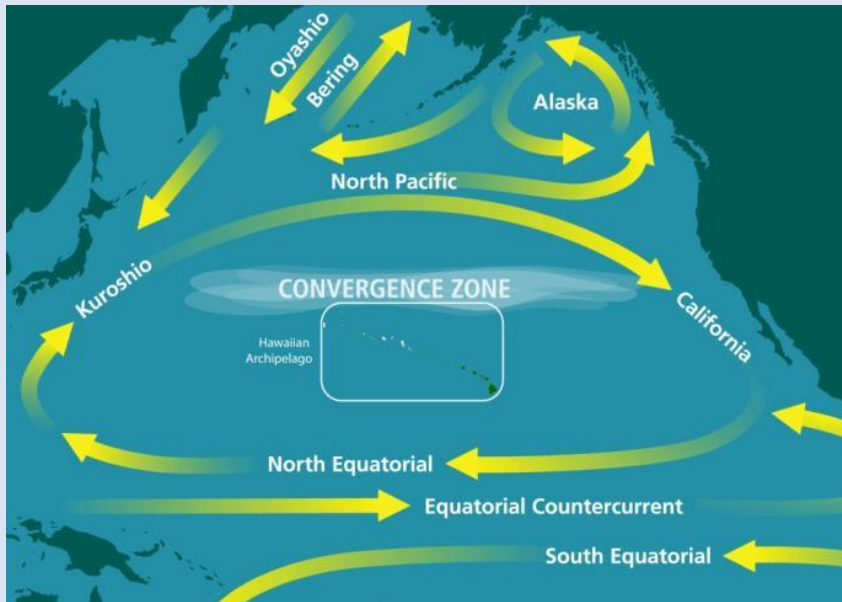
* Estimates by Japan Ministry of the Environment

Modeling: Where and When

Ocean currents

+

Winds



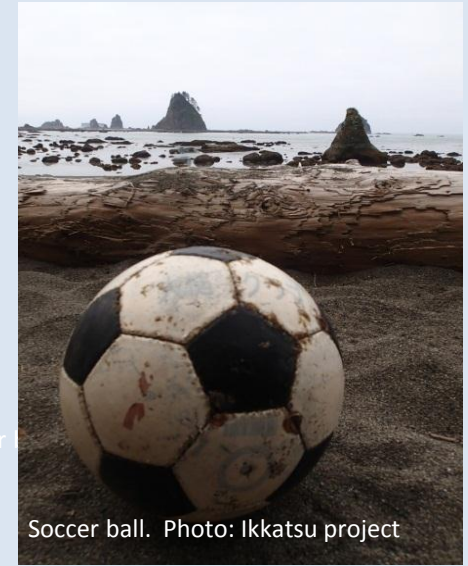
- Combination of sail area and drag
- **Low = slow** (e.g., wood, nets)
- **Medium = moderate** (e.g., fishing vessel)
- **High = fast** (e.g., unoccupied inflatable life raft, Styrofoam)

Sample of Washington's Sightings to Date

- Scattered and intermittent
- Mostly high windage items
- Several items confirmed JTMD



Small boat, Photo: NOAA



Soccer ball. Photo: Ikkatsu project



Float. Photo: NOAA



Styrofoam. Photo: Ellen Anderson

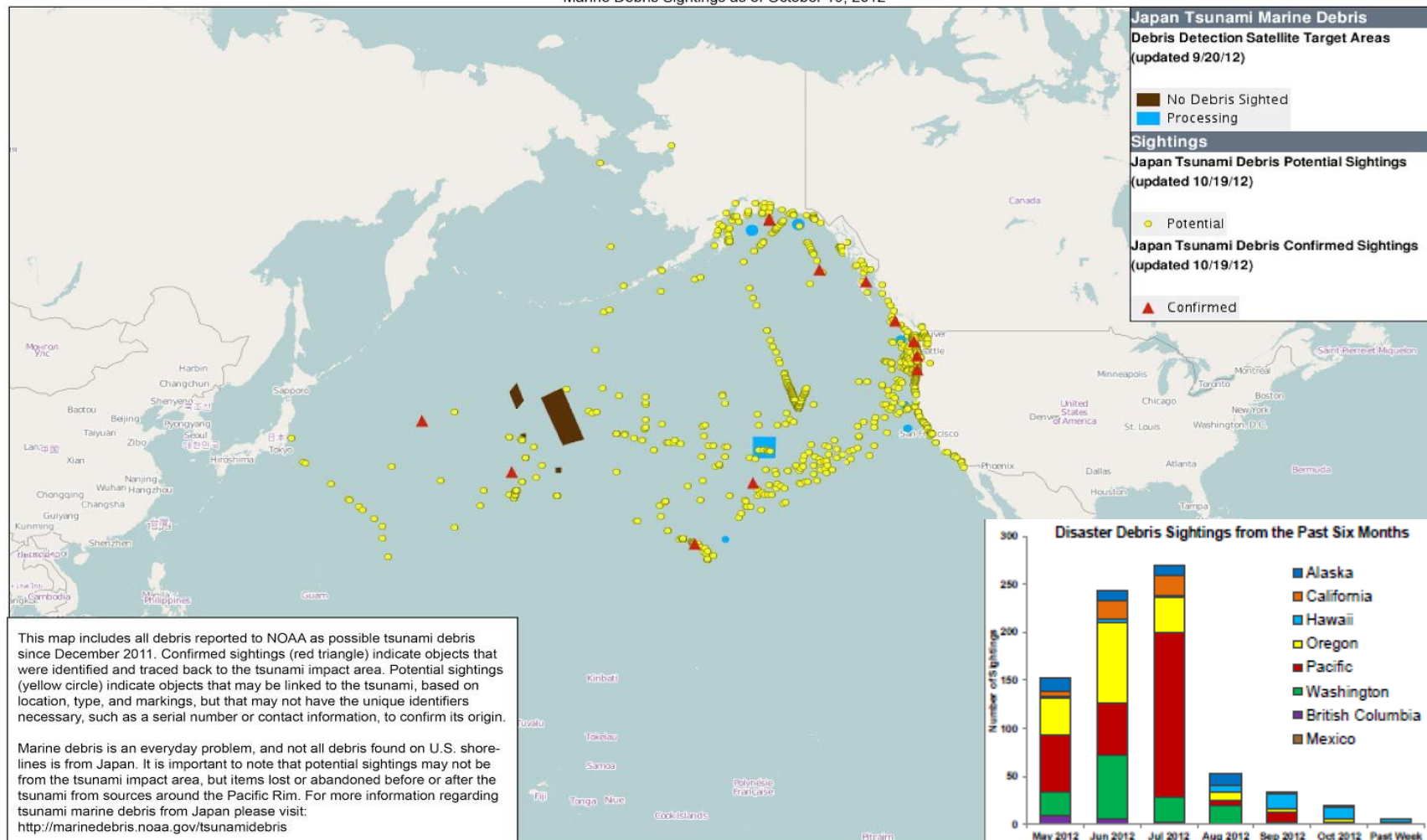


Blue box. Photo: NPS

Summary of JTMD Sightings

http://marinedebris.noaa.gov/tsunamidebris/debris_sightings.html

Marine Debris Sightings as of October 19, 2012



Planning

- Collaborative approach
- Plan addresses
 - Routine marine debris on land
 - Large debris on land
 - Offshore debris
 - Hazardous debris
 - Invasive species
 - Communication and outreach



Washington State

Marine Debris Response Plan
September 2012



<http://marinedebris.wa.gov/>

THANK YOU

Call: **1-855-WACOAST (1-855-922-6278)**

State website: <http://marinedebris.wa.gov/>

NOAA website: <http://marinedebris.noaa.gov/tsunamidebris/>

Report sightings: DisasterDebris@noaa.gov

Email updates: <http://www.ecy.wa.gov/maillist.html>

(click on “marine debris”)

STATE AGENCY CONTACTS

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